

IN THE CLAIMS

Pursuant to 37 CFR §1.121(c), this listing of the claims, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Claims 21 through 60 are pending. No amendments are made to any of the pending claims by this paper.

1 21. (Amended) A negative pressure air bearing slider having a negative pressure cavity,
2 comprising:

3 a body with a principal surface disposed to confront a recording surface of a recording
4 medium, said principal surface having a lead portion and a rear portion, said lead portion being
5 spaced upstream from said rear portion relative to a rotational direction of any recording medium
6 confronted by said slider, said lead portion having a front edge, said rear portion having a rear
7 edge, said front edge and said rear edge together defining boundaries of said principal surface
8 in a longitudinal direction of said slider body; and

9 a U-shaped air bearing platform circumscribing a majority of said principal surface while
10 defining a negative pressure cavity on said principal surface, said U-shaped air bearing platform
11 comprising not more than two separate air bearing platforms each extending rearwardly toward
12 said rear portion of said principal surface and respectively terminating at a first rear termination
13 and a second rear termination to form trailing terminal ends of said negative pressure cavity
14 spaced-apart from said rear portion, at least one of said not more than two separate air bearing
15 platforms including a sidewall contiguous with one of said boundaries;

16 at least one of said first rear termination and said second rear termination not coinciding
17 with said rear edge, and being disposed upstream of said rear edge relative to said rotational
18 direction of said recording medium.

1 22. The negative pressure air bearing slider according to claim 21, further comprising:
2 a gap disposed within said U-shaped air bearing platform.

1 23. The negative pressure air bearing slider according to claim 22, wherein:
2 said gap is centered with respect to a longitudinal axis of said slider body.

1 24. The negative pressure air bearing slider according to claim 22, wherein:
2 said gap is off-centered with respect to a longitudinal axis of said slider body.

1 25. (Amended) The negative pressure air bearing slider according to claim 21, further
2 comprising:
3 a recessed step disposed within said U-shaped air bearing platform.

1 26. The negative pressure air bearing slider according to claim 25, wherein:
2 said recessed step is centered with respect to a longitudinal axis of said slider body.

1 27. The negative pressure air bearing slider according to claim 25, wherein:
2 said recessed step is off-centered with respect to a longitudinal axis of said slider body.

1 28. The negative pressure air bearing slider according to claim 21, further comprising:
2 a first front air bearing platform; and
3 a second front air bearing platform;
4 said first and said second front air bearing platforms being disposed on opposite sides of
5 said principal surface symmetrically about a longitudinal axis of said slider body, said first and
6 second front air bearing platforms being disposed upstream of said U-shaped air bearing
7 platform relative to a rotational direction of said recording medium.

1 29. The negative pressure air bearing slider according to claim 28, wherein:
2 a tapered surface portion is interposed between said front edge and each of said first and
3 said second front air bearing platforms, the tapered surface portion tapering from each air

4 bearing surface toward said front edge of said slider body.

1 30. The negative pressure air bearing slider according to claim 21, further comprising:
2 a rear air bearing platform accommodating mounting of a transducer, said rear air bearing
3 platform being spaced downstream of said U-shaped air bearing platform relative to a rotational
4 direction of said recording medium, and being centered with respect to a longitudinal axis of said
5 slider body.

1 31. (Amended) A negative pressure air bearing slider, comprising:
2 a principal surface defining a first plane tangential to a first direction;
3 said principal surface having a lead portion and a rear portion, said lead portion being
4 spaced upstream from said rear portion relative to said first direction, said lead portion having
5 a front edge, said rear portion having a rear edge, said front edge and said rear edge together
6 defining longitudinal boundaries of said principal surface in said first direction; and
7 a U-shaped air bearing platform having a plurality of air bearing surfaces embracing a
8 majority of said principal surface while surrounding a negative pressure cavity and defining a
9 second plane tangential to said first direction, said U-shaped air bearing platform comprising not
10 more than two separate air bearing platforms each extending from said lead portion rearwardly
11 toward said rear portion and respectively terminating at a first rear termination and a second rear
12 termination, at least one of said not more than two separate air bearing platforms extending from
13 an edge of one of said boundaries;
14 at least one of a surface between said first rear termination and said rear edge and a
15 surface between said second rear termination and said rear edge being in said first plane.

1 32. The negative pressure air bearing slider according to claim 31, wherein said U-
2 shaped air bearing platform further comprises:
3 a cross rail portion extending generally laterally across said principal surface.

1 33. The negative pressure air bearing slider according to claim 32, further comprising:
2 a gap disposed within said cross rail portion.

1 34. The negative pressure air bearing slider according to claim 33, wherein:
2 said gap is centered with respect to a longitudinal axis of said slider body.

1 35. The negative pressure air bearing slider according to claim 33, wherein:
2 said gap is off-centered with respect to a longitudinal axis of said slider body.

1 36. The negative pressure air bearing slider according to claim 32, further comprising:
2 a recessed step disposed within said cross rail portion.

1 37. The negative pressure air bearing slider according to claim 36, wherein:
2 said recessed step is centered with respect to a longitudinal axis of said slider body.

1 38. The negative pressure air bearing slider according to claim 36, wherein:
2 said recessed step is off-centered with respect to a longitudinal axis of said slider body.

1 39. (Amended) The negative pressure air bearing slider according to claim 31, further
2 comprising:
3 a first front air bearing platform; and
4 a second front air bearing platform;
5 said first and said second front air bearing platforms being disposed on opposite ends of
6 said principal surface symmetrically about a longitudinal axis of said slider body, said first and
7 second front air bearing platforms being disposed upstream of said U-shaped air bearing
8 platform relative to said first direction.

1 40. The negative pressure air bearing slider according to claim 39, wherein:

2 a tapered surface portion is interposed between said front edge and each of said first and
3 said second front air bearing platforms, the tapered surface portion tapering from each air
4 bearing surface toward said front edge of said slider body.

1 41. (Amended) The negative pressure air bearing slider according to claim 31, further
2 comprising:

3 a rear air bearing platform accommodating mounting of a transducer, said rear air bearing
4 platform being spaced downstream of said U-shaped air bearing platform relative to said first
5 direction, and being centered with respect to a longitudinal axis of said slider body.

1 42. (Amended) A negative pressure air bearing slider, comprising:

2 a slider having a body with a principal surface disposed to confront a recording surface
3 of a recording medium, said principal surface having a lead portion and a rear portion, said lead
4 portion being spaced upstream from said rear portion relative to a rotational direction of any
5 recording medium confronted by said slider with a longitudinal axis of said slider extending
6 between said lead portion and said rear portion defining a longitudinal direction of said slider
7 and forming a tangent to said rotational direction, said lead portion having a front edge, said rear
8 portion having a rear edge, said front edge and said rear edge together defining boundaries of
9 said principal surface in said longitudinal direction of said slider; and

10 a U-shaped air bearing platform defining a negative pressure cavity on said principal
11 surface, said U-shaped air bearing platform comprising not more than two separate air bearing
12 platforms each extending rearwardly toward said rear portion of said principal surface and
13 respectively forming a first air bearing surface terminating in a first side wall portion and
14 forming a second air bearing surface terminating in a second side wall portion, at least one of
15 said not more than two separate air bearing platforms including a sidewall extending from one
16 of said boundaries, with said U-shaped platform comprising an arcuately shaped front wall
17 oriented toward said lead portion, at least one of said not more than two separate air bearing

18 platforms extending from an edge of one of said boundaries.

1 43. (Amended) The negative pressure air bearing slider according to claim 42, further
2 comprising a gap disposed within said U-shaped platform.

1 44. The negative pressure air bearing slider according to claim 43, wherein said gap is
2 centered with respect to said longitudinal axis of said slider body.

1 45. The negative pressure air bearing slider according to claim 43, wherein said gap is
2 off-centered with respect to said longitudinal axis.

1 46. (Amended) The negative pressure air bearing slider according to claim 42, further
2 comprising a recessed step disposed within said U-shaped platform.

1 47. The negative pressure air bearing slider according to claim 46, wherein said recessed
2 step is centered with respect to said longitudinal axis.

1 48. The negative pressure air bearing slider according to claim 46, wherein said recessed
2 step is off-centered with respect to said longitudinal axis.

1 49. The negative pressure air bearing slider according to claim 42, further comprising:
2 a first front air bearing platform; and
3 a second front air bearing platform;
4 said first and said second front air bearing platforms being disposed on opposite sides of
5 said principal surface symmetrically about said longitudinal axis of said slider body, said first
6 and second front air bearing platforms being disposed upstream of said U-shaped air bearing
7 platform relative to said rotational direction.

1 50. The negative pressure air bearing slider according to claim 49, further comprised of:
2 a tapered surface portion is interposed between said front edge and each of said first and
3 said second front air bearing platforms, the tapered surface portion tapering from each air
4 bearing surface toward said front edge of said slider body.

1 51. (Amended) The negative pressure air bearing slider according to claim 42, further
2 comprising a rear air bearing platform accommodating mounting of a transducer, said rear air
3 bearing platform being spaced downstream of said U-shaped air bearing platform relative to said
4 rotational direction of the recording medium, and being centered with respect to said
5 longitudinal axis of said slider body.

1 52. (Amended) A negative pressure air bearing slider having a negative pressure cavity,
2 comprising:

3 a body with a principal surface disposed to confront a recording surface of a recording
4 medium, said principal surface having a lead portion separated from a rear portion by a central
5 portion, said lead portion and said central portion being spaced upstream from said rear portion
6 relative to a rotational direction of any recording medium confronted by said slider, said lead
7 portion having a front edge, said rear portion having a rear edge, said front edge and said rear
8 edge together defining boundaries of longitudinal sides of said principal surface in a longitudinal
9 direction of said slider body; and

10 a plurality of arcuately shaped arms each having distal ends extending from opposite ones
11 of said longitudinal sides curving inwardly across said central portion of said principal surface
12 with spaced-apart proximal facing ends of said arms together forming a U-shaped air bearing
13 platform located between said boundaries to separate a negative pressure cavity defined by said
14 arms on said principal surface from said boundaries, at least one of said arms extending from an
15 edge of one of said boundaries;

16 a distal end of at least one of said arms forming a terminal end wholly within said central
17 portion and spaced-apart from said rear portion.

1 53. The negative pressure air bearing slider of claim 52, further comprising a cross-rail
2 portion of said platform extending generally laterally across said principal surface and
3 connecting said proximal facing ends.

1 54. The negative pressure air bearing slider of claim 52, further comprising said arms
2 adjoining said boundaries.

3 55. (Amended) A negative pressure air bearing slider having a negative pressure cavity,
4 comprising:

5 a body with a principal surface disposed to confront a recording surface of a recording
6 medium, said principal surface having a lead portion separated from a rear portion by a central
7 portion, said lead portion and said central portion being spaced upstream from said rear portion
8 relative to a rotational direction of any recording medium confronted by said slider, said lead
9 portion having a front edge, said rear portion having a rear edge, said front edge and said rear
10 edge together defining boundaries of longitudinal sides of said principal surface in a longitudinal
11 direction of said slider body; and

12 a plurality of arcuately shaped arms embracing a majority of said principal surface and
13 each having distal ends extending from opposite ones of said longitudinal sides arcuately
14 inwardly across said principal surface with spaced-apart proximal facing ends of said arms
15 together forming a U-shaped air bearing platform located between said boundaries to separate
16 a negative pressure cavity defined by said arms on said principal surface from said boundaries;

17 a distal end of at least one of said arms forming a terminal end wholly within said central
18 portion and spaced-apart from said rear portion.

1 56. The negative pressure air bearing slider of claim 55, further comprising a cross-rail
2 portion of said platform extending generally laterally across said principal surface and
3 connecting said proximal facing ends.

4 57. The negative pressure air bearing slider of claim 55, further comprising said arms
5 bordering said longitudinal sides.

6 58. A negative pressure air bearing slider having a negative pressure cavity, comprising:
7 a body with a principal surface disposed to confront a recording surface of a recording
8 medium, said principal surface having a lead portion separated from a rear portion by a central
9 portion, said lead portion and said central portion being spaced upstream from said rear portion
10 relative to a rotational direction of any recording medium confronted by said slider, said lead
11 portion having a front edge, said rear portion having a rear edge, said front edge and said rear
12 edge together defining boundaries of longitudinal edges of said principal surface in a
13 longitudinal direction of said slider body, said central portion being formed by opposite
14 longitudinal sides separated by a longitudinal center and bounded by said longitudinal edges; and
15 a plurality of arcuately shaped arms each having distal ends extending from opposite ones
16 of said longitudinal sides curving inwardly across said central portion of said principal surface
17 with spaced-apart proximal facing ends of said arms together forming a U-shaped air bearing
18 platform located between said boundaries to separate a negative pressure cavity defined by said
19 arms on said principal surface from said boundaries;
20 at least one of said distal ends forming a terminal end wholly within said central portion
21 and spaced-apart from said rear portion.

1 59. The negative pressure air bearing slider of claim 58, further comprising a cross-rail
2 portion of said platform extending generally laterally across said principal surface and
3 connecting said proximal facing ends.

1 60. The negative pressure air bearing slider of claim 58, further comprising said arms
2 adjoining said longitudinal edges.